



## Impact of Stimulatory Play Materials on Psycho-Motor Development of Infants

### KEYWORDS

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**ABSTRACT** *Early years are the crucial years for the development of the child and each child needs an experientially rich environment for his/her optimum development. Parents must understand the importance of their youngster's environment, nourishment, and kind of stimulation they receive during these crucial early years. How their child functions from the preschool years through adolescence, and even adulthood, depends to a great extent on the youngster's early experiences. Proper opportunities are not available to the children living in rural areas for developing their potentials to the maximum. These potentials can be enhanced by providing them activities through a comprehensive intervention programmes through stimulatory toys. The study investigated the impact of stimulatory play material on motor and mental development of infants. A sample of 30 male and female infants in the age group of one to three years were selected from Hattarkihal village of Bagewadi taluk of Karnataka. The experimental group consisted of 15 infants and the control group consisted of 15 infants. Bayley's scale for infant development (BSID) was used to assess the psycho-motor development of infants. The summated raw scores were converted to standard scores or psychomotor developmental indices. Further percentage increase in the psychomotor development was calculated. The results revealed an increase in motor development by 31.6% and increase in mental development by 35.0% after the intervention programme.*

### Introduction:

There is important new scientific evidence that suggests the first three years of life are much more important in the long-term development of young children than previously believed. Researchers now confirm that the way parents interact with their young children and the experiences they provide them have a big impact on their youngster's mental development, motor development, emotional development, learning skills, and how they function later in life. Touching, holding, rocking, talking, listening and reading, or just playing with a child dramatically influences the youngster's brain development. Today's parents should realize how important their child's first three years of life are to brain development. Parents must understand the importance of their youngster's environment, nourishment, and kind of stimulation they receive during these crucial early years. How their child functions from the preschool years through adolescence, and even adulthood, depends to a great extent on the youngster's early experiences.

Early years are the crucial years for the development of the child and each child needs an experientially rich environment for his/her optimum development. The nurturing experiences the infant receives in the early years of his life, serve as the foundation for his subsequent learning. Therefore, enrichment / deprivation during the early years of life would be particularly vital so far as later development is concerned. Available research evidence indicates that about 50 percent of intellectual development takes place between conception and four years (Muralidharan 1992).

During infancy, two major kinds of development that takes place are the mental development and motor development. Motor development means the development of control over body movements which results in increasing coordination between various parts of body. Through the sensory and motor experiences of the first few months, the child develops perceptual abilities and motor skills. Delay in achievement of various motor and mental abilities affects the child in many ways. Research by Swaminathan (1989) has shown that sensory stimulation from the envi-

ronment affects the functioning of neural pathways and the better these are developed, the better the child is able to respond to stimuli. Proper opportunities are not available to the children living in rural areas for developing their potentials to the maximum. These potentials can be enhanced by providing them activities through a comprehensive intervention programmes. The present study investigates the impact of stimulatory play material on motor and mental development of infants with the following

### objectives.

- To create awareness and sensitize rural parents on the importance and use of quality play material kit to optimize motor and mental development of infants.
- To know the impact of intervention through the use of stimulatory toys on motor and mental development of infants.

### Methodology:

In the study, a sample of 30 male and female infants in the age group of one to three years were selected from Hattarkihal village of Bagewadi taluk of Karnataka. The experimental group consisted of 15 infants and the control group consisted of 15 infants. Bayley's scale for infant development (BSID) was used to assess the psycho-motor development of infants. An abridged tool consisting of 25 items for motor and 41 items for mental development was administered to know the impact of stimulation programme provided by mothers to the infants in their homes through the toys. In phase I, Infants in the age group of one to three years who were provided with nil or least play materials were selected and randomly assign providing play material kited into control and experimental groups. Pre-test was conducted to assess the motor and mental development of infants. In phase II, sensitization and awareness among parents was created on importance and use of quality play material through package and stimulation kit to them for three months. The mothers were instructed to use the toys for atleast two hours daily to experimental group. In phase III, post test was conducted

to see the impact of stimulation in optimizing the motor and mental development of infants. Only such items which were appropriate for the age were administered to the infants. The summated raw scores were converted to standard scores or psychomotor developmental indices. Further percentage increase in the psychomotor development was calculated.

#### Findings:

The results of the impact of stimulation on motor development of infants is presented in the table 1.

**Table-1: Mean scores of motor development in both groups during pre-test and post-test**

Age range	Control group (N=15)		% increase	Experimental group (N=15)		% increase
	Pre-test	Post-test		Pre-test	Post-test	
1 to 3 years			17.8			31.6
	90.4	108.2		92.8	124.4	

It reveals the mean scores of infants with respect to pre and post test of experimental and control groups with regard to motor development. It can be observed that infants in both groups had almost similar levels of mean scores with regard to the variable during pre-test. An increase in their scores was observed during post-test of infants. This was not the case in experimental group where infants showed increase in motor development after intervention. The differences in the variables of motor development are due to the fact that infants in experimental group were provided with necessary stimulation and their mothers were given appropriate education about importance of toys and play materials and knowledge about different developmental milestones of infants which can be best achieved by giving proper stimulation. The results of this study are in line with the study carried out by Mishra and Mohanty (1991) who found significant improvements in the cognitive skills of the children of experimental group.

Table 2 shows the significance of stimulation on mental development of infants.

**Table-2: Mean scores of mental development in both groups during pre-test and post-test**

Age range	Experimental group (N=15)		% increase	Control group (N=15)		% increase
	Pre-test	Post-test		Pre-test	Post-test	
1 to 3 years			14.6			35.0
	87.6	102.2		85.4	120.4	

Gains in these variables were seen more in case of experimental group. It can be observed that although infants in both groups had almost similar scores during pretest, differences existed during post test which showed a positive impact of intervention. Similar results were found in a study conducted by Jaya and Ratna (1992) who observed that due to exposure to stimulation programme, experimental children's rate of improvement in mental abilities was higher than the other group. Thus, it can be said that infants exposed to good creative toys and play materials have measurably better brain functioning than those raised in a less stimulating environment as found by Brazelton (1994).

#### Conclusion:

Early development is more critical than later development. The early years lay strong foundation for later years. Parents and teachers need to understand that though the developmental pattern is similar to all, there are individual differences and children grow at their own rate and that the opportunities and learning that is provided at the right time would be challenging and stimulating the growth and Development. Hence there is an immediate need for providing rural child care givers, the knowledge and awareness that affects the child's development in a positive direction.

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